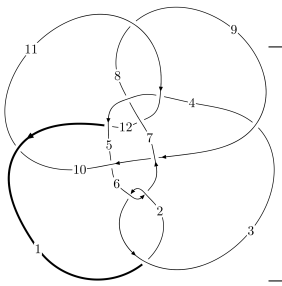
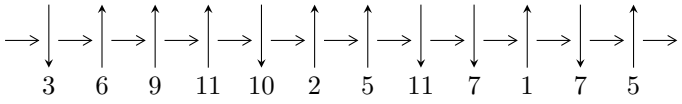
$12n_{0463}$ $(K12n_{0463})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_2}{3,6} \xrightarrow{} \underset{c_6}{2} \xrightarrow{} \underset{c_1}{7} \to \underset{c_{10}}{1,10} \to \underset{c_5}{11} \xrightarrow{} \underset{c_4}{5} \xrightarrow{} \underset{c_9}{4} \xrightarrow{} \underset{c_8}{9} \xrightarrow{} \underset{c_{12}}{8} \to 12 \twoheadrightarrow c_3, c_7, c_{11}$$

Ideals for irreducible components[2]of $X_{\mathbf{par}}$

$$I_1^u = \langle 1.95032 \times 10^{31} u^{56} + 1.71447 \times 10^{31} u^{55} + \cdots + 4.19522 \times 10^{30} b + 2.83748 \times 10^{30},$$
$$6.77996 \times 10^{28} u^{56} + 1.77525 \times 10^{28} u^{55} + \cdots + 4.19522 \times 10^{30} a + 2.18312 \times 10^{31},\ u^{57} + u^{56} + \cdots - 4u + 1 \rangle$$
$$I_2^u = \langle -22u^{18} - 181u^{17} + \cdots + 163b - 517,\ -236u^{18} + 207u^{17} + \cdots + 489a - 656,\ u^{19} + 4u^{17} + \cdots + u + 3 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I.

$\boldsymbol{I_1^u = \langle 1.95\times 10^{31}u^{56}+1.71\times 10^{31}u^{55}+\cdots+4.20\times 10^{30}b+2.84\times 10^{30},\ 6.78\times 10^{28}u^{56}+1.78\times 10^{28}u^{55}+\cdots+4.20\times 10^{30}a+2.18\times 10^{31},\ u^{57}+u^{56}+\cdots-4u+1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_6 = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_2 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_7 = \begin{pmatrix}u\\u^3+u\end{pmatrix}$$

$$a_1 = \begin{pmatrix}u^2+1\\u^2\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}-0.0161612u^{56}-0.00423161u^{55}+\cdots+9.21492u-5.20384\\-4.64891u^{56}-4.08673u^{55}+\cdots+8.22561u-0.676360\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}1.35701u^{56}-1.90195u^{55}+\cdots+15.5812u-3.61076\\-0.690005u^{56}-0.579020u^{55}+\cdots-0.467421u+2.14333\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.0705764u^{56}+1.77602u^{55}+\cdots+7.98057u-8.40092\\-1.38197u^{56}-3.25826u^{55}+\cdots+15.1658u-1.78365\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-3.43593u^{56}-4.84658u^{55}+\cdots+27.2515u-12.4708\\0.831823u^{56}+1.66029u^{55}+\cdots-4.45631u+2.03328\end{pmatrix}$$

$$a_9 = \begin{pmatrix}2.85272u^{56}-0.882312u^{55}+\cdots+16.7462u-5.66879\\-1.66635u^{56}-1.20242u^{55}+\cdots-2.09986u+2.60564\end{pmatrix}$$

$$a_8 = \begin{pmatrix}-2.83296u^{56}-0.179396u^{55}+\cdots-13.2309u+6.27694\\-1.18756u^{56}-1.89146u^{55}+\cdots+4.35427u-0.0534336\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}-0.245429u^{56}-0.791586u^{55}+\cdots+10.2920u-3.11445\\-2.79987u^{56}-2.53249u^{55}+\cdots+6.69697u-0.0731651\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.53377u^{56}-2.13196u^{55}+\cdots+30.2938u-21.3146$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{57}+25u^{56}+\cdots+14u-1$
c_2, c_6	$u^{57}-u^{56}+\cdots-4u-1$
c_3, c_7	$u^{57}+u^{56}+\cdots+20u-1$
c_4	$u^{57}+57u^{55}+\cdots-5u-1$
c_5	$u^{57}+2u^{56}+\cdots-20u-8$
c_8	$u^{57}+12u^{56}+\cdots+6371062u-656059$
c_9	$u^{57}-16u^{56}+\cdots+4109u-103$
c_{10}	$u^{57}+17u^{56}+\cdots-1408u-121$
c_{11}	$u^{57}-2u^{56}+\cdots+2391u-4381$
c_{12}	$u^{57}-5u^{56}+\cdots-406462u-931379$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{57} + 17y^{56} + \cdots + 290y - 1$
c_2, c_6	$y^{57} + 25y^{56} + \cdots + 14y - 1$
c_3, c_7	$y^{57} + 81y^{56} + \cdots - 90y - 1$
c_4	$y^{57} + 114y^{56} + \cdots - 39y - 1$
c_5	$y^{57} - 6y^{56} + \cdots + 3024y - 64$
c_8	$y^{57} - 102y^{56} + \cdots + 13754392721800y - 430413411481$
c_9	$y^{57} - 40y^{56} + \cdots + 8276171y - 10609$
c_{10}	$y^{57} + 5y^{56} + \cdots - 20328y - 14641$
c_{11}	$y^{57} - 106y^{56} + \cdots - 199156203y - 19193161$
c_{12}	$y^{57} + 47y^{56} + \cdots - 15214664971620y - 867466841641$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.349956+0.946672I$ $a=-0.303689-0.199224I$ $b=-2.29980-2.68295I$	$-12.39530-1.32883I$	$-10.52705+0.14046I$
$u=-0.349956-0.946672I$ $a=-0.303689+0.199224I$ $b=-2.29980+2.68295I$	$-12.39530+1.32883I$	$-10.52705-0.14046I$
$u=-0.924015+0.413182I$ $a=\ \ 1.43213-0.45322I$ $b=\ \ 0.39289-1.40886I$	$-10.15880+9.30058I$	$0.80484-3.88564I$
$u=-0.924015-0.413182I$ $a=\ \ 1.43213+0.45322I$ $b=\ \ 0.39289+1.40886I$	$-10.15880-9.30058I$	$0.80484+3.88564I$
$u=-0.966093+0.416915I$ $a=-0.349131+0.038307I$ $b=-0.007320+0.449427I$	$1.114500+0.475775I$	$-1.77277-7.35288I$
$u=-0.966093-0.416915I$ $a=-0.349131-0.038307I$ $b=-0.007320-0.449427I$	$1.114500-0.475775I$	$-1.77277+7.35288I$
$u=\ \ 0.321525+1.004170I$ $a=-1.47698-1.06277I$ $b=\ \ 1.04811-2.34391I$	$-13.15110+0.96971I$	$-6.75666-1.21694I$
$u=\ \ 0.321525-1.004170I$ $a=-1.47698+1.06277I$ $b=\ \ 1.04811+2.34391I$	$-13.15110-0.96971I$	$-6.75666+1.21694I$
$u=-0.276056+0.903211I$ $a=-0.236831-1.280450I$ $b=-0.587986-0.401848I$	$-1.86758-2.05981I$	$-0.46331+1.96537I$
$u=-0.276056-0.903211I$ $a=-0.236831+1.280450I$ $b=-0.587986+0.401848I$	$-1.86758+2.05981I$	$-0.46331-1.96537I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.846735 + 0.415561I$ $a = 1.293880 + 0.511117I$ $b = 0.365878 + 1.061840I$	$0.02058 - 4.34656I$	$0.26821 + 3.69834I$
$u = 0.846735 - 0.415561I$ $a = 1.293880 - 0.511117I$ $b = 0.365878 - 1.061840I$	$0.02058 + 4.34656I$	$0.26821 - 3.69834I$
$u = 0.397636 + 0.979748I$ $a = -0.015757 + 0.428561I$ $b = -1.39141 + 1.12780I$	$-3.43752 + 1.28189I$	$-5.91191 - 1.08703I$
$u = 0.397636 - 0.979748I$ $a = -0.015757 - 0.428561I$ $b = -1.39141 - 1.12780I$	$-3.43752 - 1.28189I$	$-5.91191 + 1.08703I$
$u = -0.408296 + 0.978654I$ $a = 1.27837 + 0.98027I$ $b = 0.910664 - 0.028975I$	$-2.61713 - 0.73681I$	$-3.54054 + 3.15346I$
$u = -0.408296 - 0.978654I$ $a = 1.27837 - 0.98027I$ $b = 0.910664 + 0.028975I$	$-2.61713 + 0.73681I$	$-3.54054 - 3.15346I$
$u = -0.675685 + 0.597241I$ $a = 0.876923 - 0.578864I$ $b = -0.097247 - 0.847074I$	$1.50545 - 1.28490I$	$3.77323 + 4.50863I$
$u = -0.675685 - 0.597241I$ $a = 0.876923 + 0.578864I$ $b = -0.097247 + 0.847074I$	$1.50545 + 1.28490I$	$3.77323 - 4.50863I$
$u = 0.459215 + 1.005020I$ $a = -0.284902 + 0.841083I$ $b = 0.106017 + 1.132020I$	$-3.04982 + 4.72917I$	$-4.15324 - 9.32450I$
$u = 0.459215 - 1.005020I$ $a = -0.284902 - 0.841083I$ $b = 0.106017 - 1.132020I$	$-3.04982 - 4.72917I$	$-4.15324 + 9.32450I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.711622 + 0.542227I$ $a = -0.978562 - 0.301016I$ $b = 0.115817 - 1.372610I$	$2.68108 - 2.12211I$	$6.33969 + 1.94365I$
$u = 0.711622 - 0.542227I$ $a = -0.978562 + 0.301016I$ $b = 0.115817 + 1.372610I$	$2.68108 + 2.12211I$	$6.33969 - 1.94365I$
$u = -0.501529 + 1.005740I$ $a = -0.67417 + 1.37103I$ $b = 1.67778 + 2.16523I$	$-1.95552 - 5.12176I$	$0. + 6.61060I$
$u = -0.501529 - 1.005740I$ $a = -0.67417 - 1.37103I$ $b = 1.67778 - 2.16523I$	$-1.95552 + 5.12176I$	$0. - 6.61060I$
$u = 0.199034 + 0.817620I$ $a = 0.803863 - 0.976801I$ $b = -0.276848 - 0.608793I$	$-1.70481 - 1.56112I$	$-0.16745 + 5.41560I$
$u = 0.199034 - 0.817620I$ $a = 0.803863 + 0.976801I$ $b = -0.276848 + 0.608793I$	$-1.70481 + 1.56112I$	$-0.16745 - 5.41560I$
$u = -0.538375 + 1.030800I$ $a = -0.116672 - 0.787747I$ $b = 0.28486 - 2.44669I$	$-10.96040 - 4.57401I$	0
$u = -0.538375 - 1.030800I$ $a = -0.116672 + 0.787747I$ $b = 0.28486 + 2.44669I$	$-10.96040 + 4.57401I$	0
$u = -0.584272 + 1.019390I$ $a = 0.400981 - 0.948656I$ $b = -0.83486 - 1.37560I$	$0.20940 - 3.59994I$	0
$u = -0.584272 - 1.019390I$ $a = 0.400981 + 0.948656I$ $b = -0.83486 + 1.37560I$	$0.20940 + 3.59994I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.527359 + 1.065210I$ $a = 1.64010 - 0.51000I$ $b = 0.93686 + 1.21045I$	$-11.70070 + 5.59902I$	0
$u = 0.527359 - 1.065210I$ $a = 1.64010 + 0.51000I$ $b = 0.93686 - 1.21045I$	$-11.70070 - 5.59902I$	0
$u = 0.996785 + 0.661596I$ $a = -0.195695 + 0.706856I$ $b = -0.836567 + 0.341424I$	$-8.63281 + 4.27743I$	0
$u = 0.996785 - 0.661596I$ $a = -0.195695 - 0.706856I$ $b = -0.836567 - 0.341424I$	$-8.63281 - 4.27743I$	0
$u = 0.605290 + 1.038470I$ $a = -0.327621 - 0.864561I$ $b = 1.42976 - 1.72470I$	$1.19878 + 7.18626I$	0
$u = 0.605290 - 1.038470I$ $a = -0.327621 + 0.864561I$ $b = 1.42976 + 1.72470I$	$1.19878 - 7.18626I$	0
$u = 0.058017 + 1.216930I$ $a = -0.305650 + 0.796434I$ $b = -0.521846 + 0.385158I$	$-5.73579 - 1.82350I$	0
$u = 0.058017 - 1.216930I$ $a = -0.305650 - 0.796434I$ $b = -0.521846 - 0.385158I$	$-5.73579 + 1.82350I$	0
$u = -0.570883 + 0.483592I$ $a = 1.42182 + 0.20086I$ $b = -1.056060 + 0.012511I$	$-9.37580 + 0.10389I$	$-0.28028 - 1.50449I$
$u = -0.570883 - 0.483592I$ $a = 1.42182 - 0.20086I$ $b = -1.056060 - 0.012511I$	$-9.37580 - 0.10389I$	$-0.28028 + 1.50449I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.421818+0.600652I$ $a=-1.77014+0.12826I$ $b=\ \ 0.01207+1.76563I$	$-0.649695+1.123590I$	$1.75264-1.62857I$
$u=-0.421818-0.600652I$ $a=-1.77014-0.12826I$ $b=\ \ 0.01207-1.76563I$	$-0.649695-1.123590I$	$1.75264+1.62857I$
$u=\ \ 0.625228+1.120040I$ $a=\ \ 0.285068+1.206890I$ $b=-1.23895+1.72070I$	$-2.08741+9.80069I$	0
$u=\ \ 0.625228-1.120040I$ $a=\ \ 0.285068-1.206890I$ $b=-1.23895-1.72070I$	$-2.08741-9.80069I$	0
$u=-0.075556+1.291700I$ $a=-0.595125-0.881595I$ $b=-0.251519-0.446971I$	$-16.3180+6.3103I$	0
$u=-0.075556-1.291700I$ $a=-0.595125+0.881595I$ $b=-0.251519+0.446971I$	$-16.3180-6.3103I$	0
$u=\ \ 0.595217+0.376896I$ $a=-0.49225+2.24517I$ $b=-0.95401+1.43916I$	$-9.74503-1.13283I$	$0.125687+0.944361I$
$u=\ \ 0.595217-0.376896I$ $a=-0.49225-2.24517I$ $b=-0.95401-1.43916I$	$-9.74503+1.13283I$	$0.125687-0.944361I$
$u=-0.652334+1.131340I$ $a=-0.054821+0.544694I$ $b=\ \ 0.97755+1.04049I$	$-1.05681-6.25223I$	0
$u=-0.652334-1.131340I$ $a=-0.054821-0.544694I$ $b=\ \ 0.97755-1.04049I$	$-1.05681+6.25223I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.648644+1.154300I$ $a=\ 0.242666-1.233560I$ $b=-1.57143-2.00829I$	$-12.4207-15.0539I$	0
$u=-0.648644-1.154300I$ $a=\ 0.242666+1.233560I$ $b=-1.57143+2.00829I$	$-12.4207+15.0539I$	0
$u=-0.671768$ $a=\ 0.366130$ $b=\ 0.477596$	1.20012	11.5930
$u=\ 0.80509+1.19177I$ $a=\ 0.354067-0.302190I$ $b=\ 0.803093+0.109041I$	$-10.20330+2.47505I$	0
$u=\ 0.80509-1.19177I$ $a=\ 0.354067+0.302190I$ $b=\ 0.803093-0.109041I$	$-10.20330-2.47505I$	0
$u=\ 0.280643+0.019804I$ $a=\ 2.46507+1.48163I$ $b=\ 0.125719-0.515240I$	$-1.21526-1.45435I$	$-0.50304+4.00620I$
$u=\ 0.280643-0.019804I$ $a=\ 2.46507-1.48163I$ $b=\ 0.125719+0.515240I$	$-1.21526+1.45435I$	$-0.50304-4.00620I$

II. $I_2^u = \langle -22u^{18} - 181u^{17} + \cdots + 163b - 517,\ -236u^{18} + 207u^{17} + \cdots + 489a - 656,\ u^{19} + 4u^{17} + \cdots + u + 3 \rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.482618u^{18} - 0.423313u^{17} + \cdots + 2.27198u + 1.34151 \\ 0.134969u^{18} + 1.11043u^{17} + \cdots + 2.71166u + 3.17178 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.01022u^{18} - 0.809816u^{17} + \cdots + 2.78119u + 0.740286 \\ u^{17} + 4u^{15} + \cdots + u + 4 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.750511u^{18} - 0.159509u^{17} + \cdots - 0.139059u - 2.13701 \\ 1.43558u^{18} - 0.0981595u^{17} + \cdots + 4.47853u - 1.26380 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.523517u^{18} + 0.337423u^{17} + \cdots + 2.39673u - 1.69734 \\ -0.533742u^{18} - 0.527607u^{17} + \cdots - 1.17791u - 0.0429448 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.43967u^{18} - 0.822086u^{17} + \cdots + 2.59100u - 0.167689 \\ -0.325153u^{18} + 0.552147u^{17} + \cdots + 0.558282u + 2.85890 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.482618u^{18} - 0.423313u^{17} + \cdots + 2.27198u - 2.65849 \\ 0.423313u^{18} - 0.926380u^{17} + \cdots - 1.85890u - 2.55215 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.482618u^{18} - 0.423313u^{17} + \cdots + 2.27198u + 2.34151 \\ 0.0613497u^{18} + 1.14110u^{17} + \cdots + 1.68712u + 4.44172 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{52}{163}u^{18} - \frac{87}{163}u^{17} + \cdots - \frac{941}{163}u - \frac{1059}{163}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{19} - 8u^{18} + \cdots - 47u + 9$
c_2	$u^{19} + 4u^{17} + \cdots + u + 3$
c_3	$u^{19} + 10u^{17} + \cdots + 3u + 1$
c_4	$u^{19} + u^{18} + \cdots + 2u - 1$
c_5	$u^{19} + u^{18} + \cdots + 2u - 1$
c_6	$u^{19} + 4u^{17} + \cdots + u - 3$
c_7	$u^{19} + 10u^{17} + \cdots + 3u - 1$
c_8	$u^{19} - 15u^{18} + \cdots + 17u - 3$
c_9	$u^{19} + 3u^{18} + \cdots - u^2 + 1$
c_{10}	$u^{19} + 4u^{18} + \cdots + 5u + 1$
c_{11}	$u^{19} - u^{18} + \cdots + 6u + 1$
c_{12}	$u^{19} + 2u^{18} + \cdots - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{19} + 8y^{18} + \cdots - 131y - 81$
c_2, c_6	$y^{19} + 8y^{18} + \cdots - 47y - 9$
c_3, c_7	$y^{19} + 20y^{18} + \cdots - 7y - 1$
c_4	$y^{19} + 13y^{18} + \cdots + 12y - 1$
c_5	$y^{19} + y^{18} + \cdots - 6y - 1$
c_8	$y^{19} - 19y^{18} + \cdots - 101y - 9$
c_9	$y^{19} - 21y^{18} + \cdots + 2y - 1$
c_{10}	$y^{19} - 8y^{18} + \cdots + 7y - 1$
c_{11}	$y^{19} - 19y^{18} + \cdots - 48y - 1$
c_{12}	$y^{19} + 6y^{18} + \cdots - y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.809380+0.609336I$ $a=-0.642590+0.567390I$ $b=-0.033190+1.100160I$	$1.93114+0.05703I$	$5.27608-0.61329I$
$u=-0.809380-0.609336I$ $a=-0.642590-0.567390I$ $b=-0.033190-1.100160I$	$1.93114-0.05703I$	$5.27608+0.61329I$
$u=\ 0.380702+0.892229I$ $a=\ 0.864989+0.488196I$ $b=-1.45142+3.06408I$	$-11.73130+1.58594I$	$1.69710-4.85525I$
$u=\ 0.380702-0.892229I$ $a=\ 0.864989-0.488196I$ $b=-1.45142-3.06408I$	$-11.73130-1.58594I$	$1.69710+4.85525I$
$u=-0.950794$ $a=\ 0.534200$ $b=\ 0.417548$	0.736407	-10.1920
$u=\ 0.106744+1.047650I$ $a=\ 0.605523-0.806007I$ $b=\ 0.379570-0.884630I$	$-3.40808-2.06211I$	$-4.23882+3.25949I$
$u=\ 0.106744-1.047650I$ $a=\ 0.605523+0.806007I$ $b=\ 0.379570+0.884630I$	$-3.40808+2.06211I$	$-4.23882-3.25949I$
$u=\ 0.792456+0.478311I$ $a=-1.237570-0.352759I$ $b=\ 0.061164-1.114880I$	$1.79413-3.68410I$	$3.77498+3.60536I$
$u=\ 0.792456-0.478311I$ $a=-1.237570+0.352759I$ $b=\ 0.061164+1.114880I$	$1.79413+3.68410I$	$3.77498-3.60536I$
$u=-0.312010+0.855320I$ $a=\ 1.26370+0.74522I$ $b=-0.083954-0.552115I$	$-1.95432+0.51994I$	$-3.03581+0.54030I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.312010-0.855320I$ $a=\ \ 1.26370-0.74522I$ $b=-0.083954+0.552115I$	$-1.95432-0.51994I$	$-3.03581-0.54030I$
$u=-0.402259+1.014470I$ $a=-0.054502-1.190310I$ $b=-0.90125-1.24715I$	$-2.70781-3.32351I$	$-4.18487+4.02916I$
$u=-0.402259-1.014470I$ $a=-0.054502+1.190310I$ $b=-0.90125+1.24715I$	$-2.70781+3.32351I$	$-4.18487-4.02916I$
$u=-0.635239+1.022560I$ $a=-0.614017+0.776240I$ $b=\ \ 0.90356+1.37817I$	$0.65149-5.44524I$	$1.78951+4.96299I$
$u=-0.635239-1.022560I$ $a=-0.614017-0.776240I$ $b=\ \ 0.90356-1.37817I$	$0.65149+5.44524I$	$1.78951-4.96299I$
$u=\ \ 0.732861+0.997527I$ $a=-0.376611-0.095684I$ $b=-0.241631+0.261608I$	$-9.58271+2.96759I$	$-0.28434-4.02482I$
$u=\ \ 0.732861-0.997527I$ $a=-0.376611+0.095684I$ $b=-0.241631-0.261608I$	$-9.58271-2.96759I$	$-0.28434+4.02482I$
$u=\ \ 0.621521+1.087370I$ $a=-0.242691-1.035660I$ $b=\ \ 1.15837-1.98145I$	$-0.03477+9.00564I$	$0.80205-7.81650I$
$u=\ \ 0.621521-1.087370I$ $a=-0.242691+1.035660I$ $b=\ \ 1.15837+1.98145I$	$-0.03477-9.00564I$	$0.80205+7.81650I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{19}-8u^{18}+\cdots-47u+9)(u^{57}+25u^{56}+\cdots+14u-1)$
c_2	$(u^{19}+4u^{17}+\cdots+u+3)(u^{57}-u^{56}+\cdots-4u-1)$
c_3	$(u^{19}+10u^{17}+\cdots+3u+1)(u^{57}+u^{56}+\cdots+20u-1)$
c_4	$(u^{19}+u^{18}+\cdots+2u-1)(u^{57}+57u^{55}+\cdots-5u-1)$
c_5	$(u^{19}+u^{18}+\cdots+2u-1)(u^{57}+2u^{56}+\cdots-20u-8)$
c_6	$(u^{19}+4u^{17}+\cdots+u-3)(u^{57}-u^{56}+\cdots-4u-1)$
c_7	$(u^{19}+10u^{17}+\cdots+3u-1)(u^{57}+u^{56}+\cdots+20u-1)$
c_8	$(u^{19}-15u^{18}+\cdots+17u-3)$ $\cdot(u^{57}+12u^{56}+\cdots+6371062u-656059)$
c_9	$(u^{19}+3u^{18}+\cdots-u^2+1)(u^{57}-16u^{56}+\cdots+4109u-103)$
c_{10}	$(u^{19}+4u^{18}+\cdots+5u+1)(u^{57}+17u^{56}+\cdots-1408u-121)$
c_{11}	$(u^{19}-u^{18}+\cdots+6u+1)(u^{57}-2u^{56}+\cdots+2391u-4381)$
c_{12}	$(u^{19}+2u^{18}+\cdots-u+1)(u^{57}-5u^{56}+\cdots-406462u-931379)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{19}+8y^{18}+\cdots-131y-81)(y^{57}+17y^{56}+\cdots+290y-1)$
c_2, c_6	$(y^{19}+8y^{18}+\cdots-47y-9)(y^{57}+25y^{56}+\cdots+14y-1)$
c_3, c_7	$(y^{19}+20y^{18}+\cdots-7y-1)(y^{57}+81y^{56}+\cdots-90y-1)$
c_4	$(y^{19}+13y^{18}+\cdots+12y-1)(y^{57}+114y^{56}+\cdots-39y-1)$
c_5	$(y^{19}+y^{18}+\cdots-6y-1)(y^{57}-6y^{56}+\cdots+3024y-64)$
c_8	$(y^{19}-19y^{18}+\cdots-101y-9)$ $\cdot(y^{57}-102y^{56}+\cdots+13754392721800y-430413411481)$
c_9	$(y^{19}-21y^{18}+\cdots+2y-1)(y^{57}-40y^{56}+\cdots+8276171y-10609)$
c_{10}	$(y^{19}-8y^{18}+\cdots+7y-1)(y^{57}+5y^{56}+\cdots-20328y-14641)$
c_{11}	$(y^{19}-19y^{18}+\cdots-48y-1)$ $\cdot(y^{57}-106y^{56}+\cdots-199156203y-19193161)$
c_{12}	$(y^{19}+6y^{18}+\cdots-y-1)$ $\cdot(y^{57}+47y^{56}+\cdots-15214664971620y-867466841641)$